

BOOK REVIEWS

ISELY, DUANE. **Leguminosae (Fabaceae).** 1990. In: **Vascular Flora of the Southeastern United States.** Vol. 3, Part 2. The University of North Carolina Press, Chapel Hill. 258 pp. \$35.00.

This is the second issue in the series *Vascular Flora of the Southeastern United States*. From the Editor's Notes: "Because of the importance and size of this family, we have elected to treat these plants in a separate volume. To place this in taxonomic sequence, it is assigned as Volume 3, Part 2."

The Introduction has sections on 1) The Southeastern United States, 2) Classification and Nomenclature, and 3) About the Text.

The taxonomic treatment in this text consists of a single family and three subfamilies. Keys to subfamilies, genera of the subfamilies, and to species are included with excellent descriptions of the taxa. The keys to genera of the subfamilies are accompanied by diagrammatic illustrations.

"Appendix 1 – Selected Bibliographies" has the references sorted into 1) General References to Leguminosae, 2) Floristic Treatments of Leguminosae of the United States, 3) References to Cultivated Species, and 4) Horticultural Tree and Shrub References.

"Appendix 2 – Systematics of the Leguminosae" is divided into two areas, 1) Historical Accounting of Legume Classification and 2) Classification of Legumes in the Southeastern United States.

The appendices are followed by separate chapters: 1) Symbols, 2) Glossary, 3) Literature Cited, and 4) Index.

This is the first comprehensive treatment of the legumes of the southeastern United States since 1933 when they were treated in the edition of Small's "Manual of the southeastern flora." This volume is a valuable addition for the identification of the legumes of the southeastern United States. Appendix 2 is an excellent discourse on classification. This book should be in every herbarium as a standard reference for this family. *Wm. F. Mabler*.

CRAWFORD, DANIEL J. 1990. **Plant Molecular Systematics: Macromolecular Approaches.** John Wiley & Sons, New York. Hardbound \$49.95. 388 pp.

Although the use of molecular information in systematic studies has been available in excess of thirty years, plant systematists have consistently applied such techniques for only about half that time. Despite the now-common usage of enzyme electrophoresis and various DNA protocols, no text provided a historical perspective of plant molecular systematics until Crawford's book. Topics covered in this volume include electrophoresis of various plant proteins, enzyme electrophoresis, systematic serology, nuclear, nuclear ribosomal, and chloroplast DNA studies and their contributions to the current understanding of vascular plant evolution. The real value of this book lies in Crawford's clearly-conveyed rationale for the limitations and strengths of various molecular methods. His examples, taken from published literature, are classic illustrations of the insights gained through the compilation of numerous research efforts. While *Plant Molecular Systematics* may never garner popular appeal, it should be required reading for any student contemplating work in plant systematics. Other individuals interested in understanding current trends in plant evolutionary theory would do well to look at it, too. The reference section is an invaluable resource, making one willing to overlook the numerous typographical errors, which, I hope, will be corrected in future editions, and even takes some of the sting out of the publisher's price. *Nancy Cowden*.